



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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Ref: EPR-N

JUN 13 2012

Dennis J. Carpenter
Field Manager
Rawlins Field Office
Bureau of Land Management
1300 North Third Street
P.O. Box 2407
Rawlins, WY 82301-2407

RE: Draft Environmental Impact Statement
Lost Creek In-Situ Uranium Recovery Project,
Sweetwater County, WY
CEQ#: 20120117

Dear Mr. Carpenter:

The U.S. Environmental Protection Agency Region 8 (EPA) has reviewed the U.S. Bureau of Land Management (BLM), Draft Environmental Impact Statement (EIS) on the proposed Lost Creek In-Situ Uranium Recovery (ISR) Project. Our comments are provided for your consideration pursuant to our responsibilities and authority under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C) and Section 309 of the Clean Air Act (CAA), 42 U.S.C. Section 7609.

Project Background and General Comments

The Lost Creek ISR Draft EIS analyzes environmental impacts associated with a proposal from Lost Creek ISR, LLC to develop the uranium resource on the company's existing leases in the Lost Creek project area. The Preferred Alternative selected by the BLM, is the Proposed Action for ISR mining and processing, that also includes an onsite vacuum yellowcake dryer, which will substantially reduce the number of product shipments due to the reduction in overall all volume of product. This has a positive environmental effect of reducing air and wildlife impacts and lessens the potential for accidental transportation spills. For the Preferred Alternative, approximately 6 million pounds of uranium would be produced over a 12 year period from 3 separate mine units located within the Lost Creek project area. Construction would include a processing plant with a vacuum dryer, two storage ponds, an access road to the site and a pipeline system for conveying process fluids. The plan of operations includes drilling, injection, recovery and monitoring wells, as well as the construction of support facilities such as parking lots and power lines. The plan also includes details for reclamation and restoration of aquifers. The ISR operation involves pumping lixiviant solution from the plant through the pipeline network to injection wells that are drilled to the ore bearing production zone located at a depth of from 300 -700 feet below

the ground surface. The resulting uranium-laden solution is then pumped back to the plant for processing, drying into yellow cake, and then shipped offsite for further processing.

The Lost Creek ISR project is located about 40 miles northwest of Rawlins, Wyoming, in Sweetwater County. The project area boundary includes approximately 4,254 acres, but no more than 354 acres would be involved in all surface disturbance. Surface land ownership of the project area includes both BLM (85%) and State (15%) agencies. Most of the surface disturbance would be related to construction of the well pads used to extract the uranium in solution from mineral deposits beneath the site. The BLM proposes to use this environmental analysis in its decision-making process to approve the proposed development of federal minerals.

A summary of three alternatives analyzed in the Draft EIS is as follows:

- No action Alternative - No ISR actions in the project area;
- Proposed Action with Not Fencing the Pattern Areas - The purpose of the fencing is to reduce damage to wells and subsequent risk of spills from cattle or wildlife.
- Proposed Action with Onsite Dryer (Preferred Alternative) - Rather than shipping the slurry off-site for drying, the slurry would be filter-pressed to remove additional water, dried under vacuum, and packaged for shipping to a fuel processing facility.

The EPA provided both a scoping letter and subsequent preliminary Draft EIS comments for the project. We appreciate that the BLM addressed many of our comments in this Draft EIS. As a result, our concerns with the Draft EIS have narrowed to these issues: 1) Groundwater, 2) Mitigation, 3) Phased Development and 4) Air Quality.

Protection of Groundwater

The Draft EIS does not present the locations of the UIC wells. We recommend that the Final EIS discuss the locations of the UIC wells. Also, the Draft EIS states that wells within and immediately outside the permit areas are not used as sources for human consumption, yet the Draft EIS states (Section 3.6.3.2) that water from the uranium target - FG horizon may be used for potable water. The Final EIS should provide additional information to identify USDW aquifers near the project area that may be used for potable water for the Lost Creek Project.

Mitigation

The Draft EIS states (Sections 4.6.1.2 and 4.7.1.1) that procedures, training and reporting for spills or leak prevention are described in the Wyoming Department of Environmental Quality - Land Quality Division's Permit to Mine. For full disclosure of these mitigation techniques, we recommend presenting a summary of these various requirements in the Final EIS.

The Draft EIS presents (Section 2.1.5.1) a discussion on the mine unit reclamation, including well plugging and capping. The discussion provides a very general description of permanently plugging and capping the well and well casings cut off below plow depth. We recommend that this discussion be expanded to include specific monitoring that will be conducted to determine the existence of unplugged wells, and the steps to be taken to ensure that they are plugged properly to prevent impacts to aquifers.

Furthermore, the Draft EIS (Section 2.3.3.3) describes leak detection system as required under 40 CFR 192, Health and Environmental Standards for Uranium and Thorium Mill Tailings. We would like to point out that regulation 40 CFR 192 is currently undergoing rulemaking and may be changed prior to closure and reclamation of this facility. Because of this, requirements for mitigation measures should be reviewed by the BLM as standards change. Specifically, water quality standards after restoration should meet the regulatory requirements under 40 CFR 192 and the restoration plan approved by the Nuclear Regulatory Commission.

Phased Development Concerns

The Draft EIS states (Section 2.1.5.1) that mine unit restoration and reclamation will be done concurrently with production from adjacent operating units. Since reclamation activities can be lengthy and could be impacted by facility requirements to meet production goals, we believe additional information should be presented in the EIS to ensure reclamation activities are completed. This information could include a more complete description of the reverse osmosis (RO) treatment capacity and associated RO production and reclamation operational design capacity.

The Draft EIS presents (Section 2.3.3.4) the alternative Phased Development of Mine Units - Restoration and/or Reclamation Based Phases that was eliminated from detailed study. This alternative was eliminated from consideration in the Draft EIS because it would “not be economically efficient and would constrain some of the available technical options for more efficient mining and groundwater restoration.” We suggest providing additional information in support of the conclusion to eliminate this from alternatives analysis in the Final EIS.

Air Quality Considerations

For the Preferred Alternative, a vacuum yellowcake dryer was included in the project process, yet no emissions appear to be included in the emissions inventory (Section 4.1.1.4.2). We recommend emissions from the dryer be included in the Final EIS.

The Draft EIS presents existing conditions for only PM10 near the Project area. We recommend providing more complete air quality information for existing conditions by including additional criteria pollutants for the surrounding area in the Final EIS. We suggest contacting the Wyoming Department of Environmental Quality (WDEQ) for updated nearby ambient air quality summary data for the criteria pollutants.

Table 3.10-6 Primary and Secondary Limits for NAAQS and the State of Wyoming, should be updated to include the recently finalized NO₂ and SO₂ 1-hour NAAQS. Also, the ozone NAAQS is no longer 0.08 ppb, but is now 0.075 ppm.


EPA's Rating and Recommendations

Consistent with Section 309 of the CAA, it is the EPA's responsibility to provide an independent review and evaluation of the potential environmental impacts of this project. Based on the procedures the EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action, the EPA is rating this Draft EIS as Environmental Concerns – Insufficient Information (EC-2). The “EC” rating indicates that the EPA review has identified environmental impacts that need to

be avoided in order to fully protect the environment. The "2" rating indicates that the EPA review has identified a need for additional information, data, analysis or discussion in the Final EIS in order for the EPA to fully assess environmental impacts from the proposed project. A full description of the EPA's rating system is enclosed.

We hope that our comments will assist you in further reducing environmental impacts of this project. We appreciate the opportunity to review and comment on the Draft EIS. If we may provide further explanation of our comments, please contact me at 303-312-6925, or your staff may contact Ken Distler, at 303-312-6043.

Sincerely,


for

Suzanne J. Bohan
Director, NEPA Compliance and Review Program
Office of Ecosystems Protection and Remediation

Enclosure: EPA's Rating System Criteria

**U.S. Environmental Protection Agency Rating System for
Draft Environmental Impact Statements
Definitions and Follow-Up Action***

Environmental Impact of the Action

LO -- Lack of Objections: The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC -- Environmental Concerns: The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO -- Environmental Objections: The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU -- Environmentally Unsatisfactory: The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 -- Adequate: EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 -- Insufficient Information: The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new, reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 -- Inadequate: EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.

